

Executive Summary

**Water Efficiency:
Water Conservation Program Recommendations for Tucson's
Future**

January 31, 2007

Submitted By:

Community Conservation Task Force

Community Conservation Task Force
Stakeholder Participants
(July 31, 2006)

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EXECUTIVE SUMMARY

INTRODUCTION

To ensure that the water conservation strategies selected for implementation were both effective and broadly supported by the community, a **Community Conservation Task Force (CCTF)** was established by Tucson Water in the summer of 2005. Members of the CCTF represented a wide range of community stakeholders.

The mission of the CCTF was to:

“Ensure community involvement in the development of a water conservation program strategy that will provide measurable water savings, consistent with the Long-Range Water Plan.”

The CCTF sessions were structured into two phases: 1) an educational phase that emphasized the need to develop a program that responds to local needs; and 2) a work session phase that involved analysis and discussion of data provided by a consultant team. Interaction between the Consultant Team members and the CCTF occurred at various points during the process, either through direct presentations or provision of data.

The group started its work by narrowing down a list of 122 potential conservation measures to 48 that would undergo benefit-cost analysis by the consultant. The short list screened out those programs that didn't fit Tucson for qualitative reasons. Once the economic analysis was complete and CCTF questions were answered by the consultant, the task force began the work of developing the list of final recommendations for Mayor and Council, listed on the following page.

It is important to note that the CCTF determined that it would try to reach consensus in all decisions and only resort to voting, if consensus could not be reached. In the end, the CCTF adopted its final recommendations by a vote of 12 to 1.

Further study is required to fully understand the potential rate impacts that would result from the implementation of the recommended programs.

CCTF RECOMMENDED CONSERVATION MEASURES

(Approved by stakeholder vote of 12 to 1)

Rebates and Incentives

- Single Family targeted ULF toilet rebate
- Single Family greywater incentive
- Multi-family irrigation system upgrade rebate
- Multi-family high efficiency toilet rebate
- Commercial/Industrial sub-metering (indoor/outdoor) incentive
- Commercial/Industrial targeted ULF toilet rebate
- Commercial Industrial pre-rinse spray valve rebate
- Commercial/Industrial waterless urinal rebate

Retrofit on Resale Ordinances

- Multi-family irrigation system retrofit on resale ordinance
- Multi-family ULF toilet retrofit on resale ordinance
- Multi-family Condo Conversion sub-metering (indoor/outdoor) ordinance
- Commercial/Industrial irrigation system retrofit on resale ordinance
- Commercial/Industrial passive water harvesting retrofit on resale ordinance

New Construction Ordinances

- Multi-family revised landscape design standards
- Multi-family sub-metering (indoor/outdoor) ordinance
- Multi-family irrigation system design ordinance
- Commercial/Industrial water harvesting and greywater ordinance

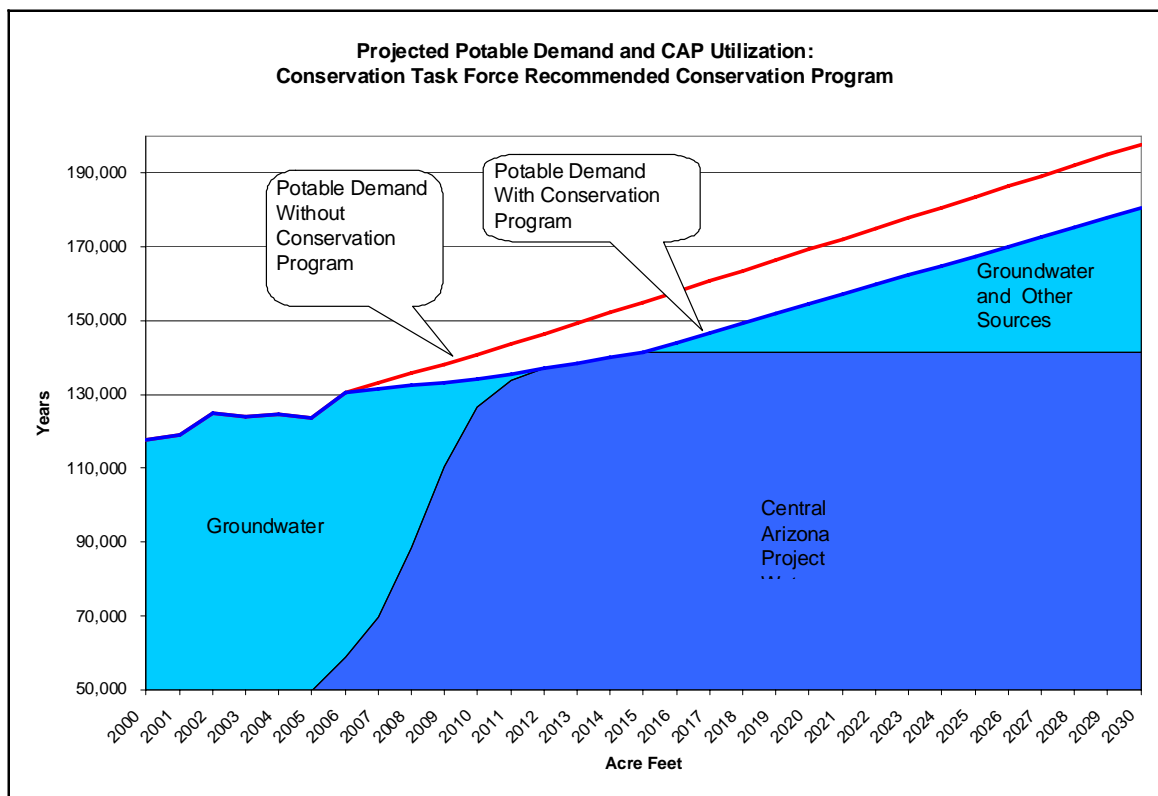
Other

- Multi-family ULF toilet community-based distribution
- ULF toilet vendor-driven delivery

Demonstration programs (all sectors)

- Hot water re-circulation program
- Smart irrigation controller program
- Water harvesting program

The projected impacts of the Task Force recommended measures can be seen on the following graph.



**Task Force Final Recommended Program List
Annual Water Savings, Costs, and Staff Requirements by Program**

		Annual Water Savings	Costs	Costs	Staff
Program		YR 2015	YR 2007	YR 2015	Reqmts
		(Acre-feet)	(\$000)	(\$000)	(FTE)
Rebates & Incentives					
SF	Targeted ULFT Rebate	1,078	\$678	\$228	0.05
SF	Greywater Incentive	180	\$122	\$122	0.2
MF	Irrigation System Upgrade Rebate	2,179	\$114	\$114	0.2
MF	High-Efficiency Toilet Rebate	716	\$213	\$213	0.05
CI	Interior & Exterior Submetering Incentive	137	\$32	\$32	0.1
CI	Targeted ULFT Rebate	296	\$117	\$64	0.2
CI	Pre-Rinse Spray Valve Rebate	132	\$17	\$23	0.1
CI	Waterless Urinal Rebate	124	\$114	\$32	0.2
Retrofit on Resale Ordinances					
MF	Irrigation System Retrofit on Resale Ordinance	2,243	\$32	\$36	0.2
MF	ULFT Retrofit on Resale Ordinance	1,401	\$49	\$41	0.05
MF	Submetering Ordinance (Condo Conversions)	717	\$7	\$7	0.1
CI	Irrigation System Retrofit on Resale Ordinance	953	\$38	\$38	0.2
CI	Passive Water Harvesting Retrofit on Resale Ordinance	144	\$38	\$38	0.2
New Construction Ordinances					
MF	Submetering Ordinance	547	\$15	\$15	0.2
MF	Irrigation System Design Ordinance	685	\$19	\$19	0.2
MF	Revised Landscape Design Standards	103	\$15	\$15	0.2
CI	Water Harvesting & Grey Water Ordinance	77	\$36	\$36	0.2
Other					
MF	ULFT Community-Based Distribution	579	\$249	\$126	0.05
MF	ULFT Vendor-Driven Delivery	447	\$258	\$131	0.075
TOTAL		12,737	\$2,160	\$1,328	2.775
Percent of Demand		7.53%			

SF – Program directed at Single Family Residential Sector

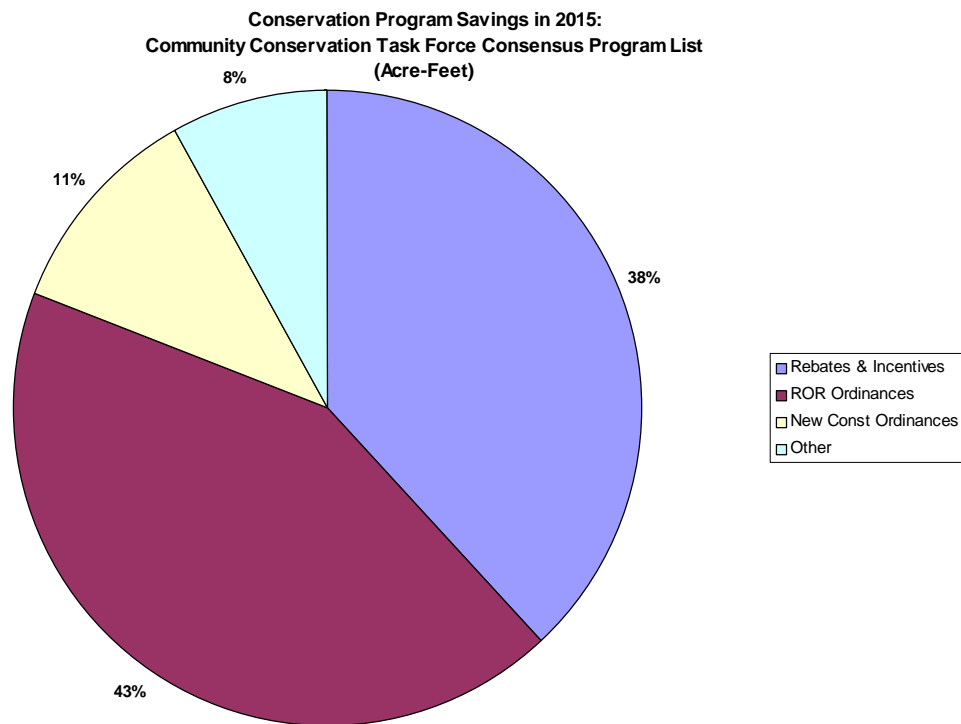
MF – Program directed at Multi-family Residential Sector

CI – Program directed at Commercial and Industrial Sector

Note: Projects that are identified as Demonstration Programs are not included in the final economic analysis, but will be included in the development of the overall conservation program plan document.

Figure 3 below provides a graphic representation of estimated water savings based on the type of program:

Estimated Water Savings



Equity

The CCTF spent a good deal of time discussing equity and acknowledged that the final recommendations have a greater number of measures that apply to the multi-family sector than others. However, it was felt that the emphasis of past conservation efforts and the block rate structure have primarily impacted the Single Family sector rather than the Multi-family and Commercial/Industrial sectors. The benefit-cost analysis pointed to the measures that offered the greatest potential, regardless of sector. The resulting Task Force recommendations represent many hours of careful consideration and discussion among the stakeholders.